

II. REJECTIONS UNDER 35 U.S.C. § 103(a)

A. Lim '584 in view of Akram et al.

The Office has made final the rejection of claims 1-9 and 12-18 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,980,584 (Lim '584), in view of U.S. Patent No. 5,230,710 (Akram). According to the Office, Lim '584 teaches the compound 1-(5-amino-2-hydroxyphenyl)ethane-1,2-diol as a primary intermediate and discloses that the primary intermediate may be used in combination with a coupler, including 2,6-bis(hydroxyethylamino)toluene as well as 2,4-diaminophenoxyethanol. The Office has acknowledged that Lim '584 exemplifies various compositions which contain the compound 1-(5-amino-2-hydroxyphenyl)ethane-1,2-diol in combination with a coupler 2-hydroxyphenyl)ethane-1,2-diol, that is outside the scope of the claimed coupler. Thus, the Office indicated that Lim '584 does not provide an example of the process or combination claims, particularly one which uses the claimed coupler.

The Office further argued that Akram teaches 2,6-diaminotoluenes for use as couplers in combination with a developer for dyeing keratin fibers. Akram's preferred couplers include 2,6-bis(hydroxyethylamino)toluene. The Office noted that Akram teaches that the disclosed couplers are an improvement over conventional coloring agents because they produce stable, bright, intense colorings, and because they have improved resistance to various agents including perspiration, acid rain, detergents, sunlight, and UV radiation.

As a result, the Office concluded that it would have been obvious to one of ordinary skill in the art to select 2,6-bis(hydroxyethylamino)toluene for use as a coupler in combination with 1-(5-amino-2-hydroxyphenyl)ethane-1,2-diol, as allegedly taught by Lim '584, to obtain a dyeing composition and process as claimed in the present invention. The Office reached this conclusion because Lim '584 allegedly teaches the claimed coupler as being suitable for use in the Lim '584 composition, and Akram teaches the beneficial properties of the claimed coupler, thus motivating one of ordinary skill in the art to select 2,6-bis(hydroxyethylamino)toluene from among the couplers taught by Lim '584 for use in the composition disclosed by Lim '584.

To establish a *prima facie* case of obviousness, three basic criteria must be met, including that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. See M.P.E.P. § 2143. Furthermore, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicants' disclosure. See *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Contrary to the Office's assertions, the Lim '584 and Akram references taken in combination fail to provide the requisite motivation that would have led the skilled artisan to choose Applicant's claimed composition. Each of the instant claims require at least one oxidation base chosen from the claimed formula (I) in combination with a coupler chosen from 1,3-bis(β -hydroxyethyl)amino-2-methylbenzene and an addition salt thereof with an acid. Lim '584 does not teach a composition containing the claimed

coupler chosen from 1,3-bis(β -hydroxyethyl)amino-2-methylbenzene and an addition salt thereof with an acid, but instead discloses an extensive laundry list of seventy or more possible "suitable" couplers, one of which happens to be 1,3-bis(β -hydroxyethylamino)-2-methylbenzene (also known as 2,6-bis(hydroxyethylamino)-toluene. There is no motivation provided by Lim '584 that would have directed the ordinary artisan to choose the specifically claimed coupler from this long list. To make it even more unlikely that the ordinary artisan would have chosen the claimed coupler, Lim '584 teaches a preferred list of couplers which excludes the claimed coupler. Therefore, the ordinary artisan, reading Lim '584 as a whole, would have been motivated to choose from the list of preferred couplers, rather than choosing the claimed 1,3-bis(β -hydroxyethyl)amino-2-methylbenzene, as the Offices suggests.

In order to make up for this deficiency of Lim '584, the Office has relied upon Akram. However, Akram adds to the list of possible couplers by reciting 2,6-diaminotoluenes in general, which may encompass many different couplers not claimed by Applicants. While Akram does list 1,3-bis(β -hydroxyethylamino)-2-methylbenzene as one of the preferred compounds, Akram entirely fails to teach or suggest that this compound should be combined with any of Applicants' claimed oxidation bases of formula (I). Instead, Akram lists six or more developer compounds different from the claimed oxidation base of formula (I) which may be combined with the couplers as oxidation bases. See Akram, column 9, lines 11-23. Therefore, taking Lim '584 and Akram in combination, there are at least several hundred, if not thousands, of possible combinations of oxidation bases and couplers, only one of which could possibly read on

the claimed combination. Such small odds of achieving the claimed combination do not provide the requisite motivation necessary to support a *prima facie* case of obviousness. Therefore, the rejection should be withdrawn.

B. Lim '438 in view of Akram et al.

The Office has also maintained the rejection of claims 1-18 under 35 U.S.C. § 103(a) as being obvious over Lim U.S. Patent 6,074,438 (Lim '438) in view of Akram. In the previous Office Action of July 17, 2000, the Office stated that Lim '438 teaches compositions for dyeing hair which contain the claimed oxidation base 2-chloro-4-aminophenol. In fact, as pointed out by Applicant's in their previous Response, the 2-chloro-4-aminophenol of Lim '438 is not a claimed compound of the instant invention. However, the Office has maintained the Lim '438 and Akram combination based on a new grounds of rejection that 2-flouro-4-aminophenol, a compound falling within the scope of the claims, would have been obvious over the 2-chloro-4-aminophenol compound of Lim '438.

The remainder of the rejection was applied based on the same grounds as set forth in the July 17, 2000 rejection. The Office has alleged that Lim '438 teaches compositions comprising the oxidation base 2-chloro-4-aminophenol and a pyrazolone coupler. The disclosed compositions may be mixed with a hydrogen peroxide oxidant. Furthermore, the Office argued that Lim '438 teaches that additional couplers may be added to the compositions in order to obtain certain color nuances and tints, including

2,6-bis(hydroxyethylamino)toluene, as well as direct dyes and additional p-aminophenol oxidation bases. Finally, the Office alleged that Lim '438 teaches that the compositions may be packaged in kits. However, the Office did acknowledge that Lim '438 does not teach a composition, process, or kit as presently claimed, particularly one which contains or uses the claimed coupler.

To make up for the deficiencies of the Lim '438 reference, the Office relied upon Akram, as set forth above in the discussion of the Lim'584 and Akram combination. In the Office's view, it would have been obvious to one of ordinary skill in the art to formulate a composition for dyeing hair which contains at least one oxidation base and coupler as claimed, as well as the claimed additional couplers and direct dyes, wherein each component is present in the claimed amounts, is packaged in kits as claimed, and is applied to hair in a dyeing process as claimed because such compositions, processes, and kits fall within the scope of Lim '438. The Office also argued that it would have been obvious to select 2,6-bis(hydroxyethylamino)toluene as the preferred coupler because Lim '438 teaches the claimed coupler and Akram teaches that the claimed coupler is preferred and results in various improved dyeing properties.

Applicants respectfully traverse this rejection on the grounds the Lim '438 and Akram references taken in combination fail to provide the requisite motivation that would have led the skilled artisan to choose Applicant's claimed composition. As discussed above in connection with the Lim '584 combination, each of the claims require at least one oxidation base chosen from the claimed formula (I) in combination with a coupler chosen from 1,3-bis(β -hydroxyethyl)amino-2-methylbenzene and an addition salt

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thereof with an acid. However, Lim '438 does not teach a composition containing a claimed oxidation base of formula (I) or a coupler chosen from 1,3-bis(β -hydroxyethyl)amino-2-methylbenzene and an addition salt thereof with an acid.

Rather, Lim'438 teaches that developers (1) and (2) may be combined with couplers (3) , (4), or (5). None of these developers or couplers fall within the scope of the oxidation bases or couplers of the instant claims. Lim '438 further teaches that additional dye ingredients may optionally be added and then sets forth an extensive laundry list of hundreds of possible "suitable" primary intermediates and/or couplers, one of which happens to be 1,3-bis(β -hydroxyethylamino)-2-methylbenzene (also known as 2,6-bis(hydroxyethylamino)-toluene). There is no motivation provided by Lin '438 that would have directed the ordinary artisan to choose the specifically claimed coupler from this long list. Similar to Lim '584, Lim '438 teaches a preferred list of couplers which excludes the claimed 1,3-bis(β -hydroxyethylamino)-2-methylbenzene coupler. Therefore, the ordinary artisan, reading Lim '438 as a whole, would have been motivated to chose from the list of preferred couplers, rather than choosing the claimed 1,3-bis(β -hydroxyethylamino)-2-methylbenzene, if they were to choose from these optional couplers at all.

In order to make up for the deficiencies of Lim '438, the Office has relied upon Akram. However, similarly as discussed above, Akram adds to the list of possible couplers by reciting 2,6-diaminotoluenes in general, which may encompass many different couplers not claimed by Applicants. While Akram does list 1,3-bis(β -hydroxyethylamino)-2-methylbenzene as one of the preferred compounds, Akram

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entirely fails to teach or suggest that this compound should be combined with any of Applicants' claimed oxidation bases of formula (I). Instead, Akram lists six or more developer compounds which may be used which are different from the claimed oxidation base of formula (I). See Akram, column 9, lines 11-23. Therefore, taking Lim '438 and Akram in combination, there are literally thousands of possible combinations of oxidation bases and couplers, *none of which* fall within the scope of Applicants' claimed invention.

Despite this, the Office has asserted that the ordinary artisan would know to chose the 4-amino-2-chlorophenol developer of Lim'438 from the many developers listed in the Lim '438 and Akram references and then modify it by substituting the chlorine groups with fluorine and, in addition to this, choose to combine this modified developer with the single coupler claimed by Applicants that is listed in the literally hundreds of couplers named in Lim '438 and Akram. Applicants assert that the odds of the ordinary artisan making the necessary choices to arrive at the claimed invention from the teachings of Lim '438 and Akram are so small that this combination of references cannot possibly provide the requisite motivation necessary to support a *prima facie* case of obviousness. For this reason, the rejection should be withdrawn.

III. OBVIOUS-TYPE DOUBLE PATENTING REJECTION

For the reasons discussed in the Amendment and Response dated October 19, 2000, Applicants respectfully request that the obvious-type double patenting rejections be held in abeyance until allowable subject matter is indicated in the instant application.

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Until such time, Applicants reserve the right to traverse the rejection or file a terminal disclaimer.

IV. CONCLUSION

In light of the above, Applicants respectfully submit that the pending claims are directed to allowable subject matter. An early and favorable action is respectfully requested.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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